

1913.



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE

BOROUGH OF MAIDSTONE.



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MAIDSTONE :

W. P. Dickinson, Printer and Stationer, Post Office Printing Works.



1914.



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BOROUGH OF MAIDSTONE.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1913.

TO THE URBAN DISTRICT COUNCIL.

MR. MAYOR AND GENTLEMEN,

I propose again to submit to you my Annual Report on the Health of the Borough of Maidstone on the same general lines as have been followed the last four years, this being in conformity with the Memorandum issued by the Local Government Board, and being of great assistance in facilitating reference.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

Maidstone is situated on a gentle declivity of a range of chalk hills running across the country and protecting it from the north and north-east winds. The business portion of the town itself lies in a hollow, and, owing to the physical peculiarities of the surrounding country, is subject to winds from the N.N.W. and from the S.W.

Those from the N.N.W. pass over marshes and alluvial plains, and, in consequence, become laden with moisture and marshy impurity, while those from the S.W. have no such deleterious qualities.

In the main the town is situate on the Hythe beds of the Lower Greensand formation, locally known as Kentish Ragstone. The town is intersected by the slow-flowing

non-tidal River Medway, which receives on its right bank and in the centre of the town the still slower flowing River Len.

The mean elevation of the town is 70 ft. above the sea level, varying from 20 to 120 ft.

The population belongs principally to the industrial and artisan classes. The chief industries are paper-making, brewing, hop and fruit growing.

SANITARY CIRCUMSTANCES.

Water Supply.—The water supplied to the town is derived from springs issuing from and from headings driven direct into the grey chalk at the foot of the North Downs in the neighbourhood of Boarley and Cossington. In addition to this the town is also supplied with water obtained from a deep well sunk in the lower greensand of the Hythe beds near the River Medway at Forstal.

BOARLEY SUPPLY.—This is collected from four springs and headings and then conducted to a Reservoir situated at the foot of the hills near Boarley Farm and from thence flows by gravitation to the lower portion of the town.

The gathering grounds were clean and the fences in a good state of preservation. Several trees have recently been trimmed of their lower branches thus admitting of more light and air. The latrine used for soldiers at musketry practice has a cemented floor and is ventilated. The contents of the pails are emptied well away.

The reservoir at Boarley is now well covered with close turf.

COSSINGTON SUPPLY.—The water derived from the three springs at Cossington flows by gravitation to the pumping station at Forstal and from thence is pumped to the reservoir at Barming and the recently erected high-level one at Detling.

The water derived from the deep well at Forstal is also pumped into these two reservoirs. This mixed supply serves the higher portion of the town, the outlying districts and the Kent County Asylum situate at Barming.

The gathering grounds at Cossington were clean and in good order, all the guard houses in an excellent state of repair and the fences in a good condition

The reservoirs at Detling and at Barming were in a satisfactory condition, the protecting turf being well grown and close. The filtering apparatus used in the ventilators at Barming were found to be working satisfactorily. This reservoir although situated near the road is thus effectually protected from the access of dust.

The pumping station at Forstal was in a very satisfactory condition. The new engine house is now completed and a new engine installed. The deep well is fully protected from any liability to pollution.

Each of these three supplies has been analysed weekly. The samples for analysis have been collected from as near the point of distribution, alternately with samples collected from as near the source as possible. The sample for the deep well is collected from off the suction pipe, that from Boarley at a house in the Sandling Road and that from Cossington at Pickering Street, Aylesford.

On all occasions the water has been constant in chemical composition, wholesome and pure, the variation from the normal standard being merely of scientific interest and not affecting its suitability for drinking in the least.

The detail of these analyses, 156 in number, is set forth in the appendix. The average results are shewn below, and do not materially differ from those of previous years.

SOURCE OF SUPPLY.	BOARLEY.	COSSINGTON.	FORSTAL.	COSSINGTON AND FORSTAL (MIXED).
Total Solids	39.9	39.8	41.5	40.0
Chlorine	2.4	2.2	3.0	2.4
Nitrogen as Nitrates . . . . .	.524	.407	.181	.334
Free Ammonia . . . . .	.00	.00	.00	.00
Albuminoid Ammonia . . . . .	.01	.00	.00	.01
Hardness, Total	25.4	21.0	28.3	27.3
" Perm.	6.9	6.7	7.8	7.1
Colour and appearance in a 2-foot tube	clear	clear	clear	clear
Smell	none	none	none	none
Phosphoric Acid	none	none	none	none

6.3 All results are given in parts per hundred thousand, except Free and Albuminoid Ammonia, which are in parts per million.

Samples from each of the supplies were collected in August last and examined bacterially by Professor Sims Woodhead whose report, dated August 19th, 1913, states that "the satisfactory nature about the results continue in that (1) very few organisms present develop at the temperature of the body, and are therefore unlikely to be pathogenic in character; (2) we have a very small number of organisms of any kind present, and, of course, fewer still of organisms that liquefy the gelatine; (3) putrefactive

organisms are absent from all the samples, and no presumptive *Bacillus Coli Communis*. The Forstal water, as usual, is of a very high standard of purity."

Drainage and Sewerage.—With the exception of a small district situate in the rural portion of Willington and the Sutton Road, a row of cottages situated at Sling's Wood and a few isolated houses, all houses are linked up with the Main Drainage system.

I have from time to time inspected with the Sanitary Inspector, the arrangements for the disposal of sewage from cottages at Sling's Wood. The method adopted is the pail closet system, the responsibility for emptying the pails on the adjacent gardens resting on the tenants. All the tenants, however, are of that class—with one exception—that do not realize the importance of regularly emptying the receptacles, and in consequence the closets become filthy, urine and faeces overflowing, causing an abominable stench, besides being a menace to the public health of the immediate neighbourhood.

The question of connecting these cottages with the sewer is one that should engage the attention of the Council.

Negotiations for the purchase of eleven acres of ground at the sewage disposal works at Aylesford, have been completed.

The soil is sand covered with a thin layer of gravelly loam, and would be used for the purpose of depositing the sludge. The quantity is estimated to be 4,000 tons per annum, and at the present time during summer this is run into land previously trenched, and in winter it is lagooned

and covered with lime. At the present time there is less than five acres of ground for the disposal of sludge.

During the year there have been 24 connections to the public sewer. No new sewers either for drainage or for surface water have been constructed.

Scavenging.—The method of collection and of disposal of the House Refuse of the Borough is as last year.

The collection remained satisfactory throughout the year, only 13 complaints having been received of non-compliance with the usual custom of collecting the refuse once a week.

Covered galvanised iron dustbins are in general use throughout the town, 347 houses having been provided with them during the year.

Eleven dilapidated ashpits have been removed, these being replaced by a movable galvanised iron dustbin with a proper covering.

Sanitary Inspections of the District.—Below will be found a classified statement of the number of premises visited and the defects or nuisances discovered.

In order to carry out the remedying of these defects 413 preliminary notices were served. Should these have no effect a statutory notice is sent, of which 204 were issued. All had been complied with up to December 31st with the exception of 12.

**Classified statement of number of premises visited
and defects discovered, &c.**

Accumulations of manure and other refuse removed	11
Ashpits, dilapidated and removed.....	11
Bakehouse inspections.....	36
Cement sinks removed and glazed sinks provided	166
Cowsheds, Dairies and Milkshops inspections.....	187
Drains cleansed on complaint or by flushing staff	1088
,, tested with smoke	331
,, tested with water.....	39
,, inspection chambers provided.....	26
,, " " airtight covers ditto.....	35
,, reconstructed.....	30
,, repaired	36
,, soil pipes removed outside and ventilated	6
,, stoneware gullies provided	78
,, stoneware drainage laid.....1,038 feet.	
,, trapped from sewer and ventilated	11
Dustbins provided.....	317
Earth or pail closets provided	5
Factory, workshop, workplace and outworkers premises inspected	487
Houses, cement concrete floors provided in cellars or repaired	84
,, floors to living-rooms provided or repaired	99
,, guttering and shooting provided or repaired	87
,, refuse removed on complaint.....	16
,, roofs repaired	137
,, through ventilation provided	17
,, No. of rooms where dirty and loose paper have been removed and walls and ceilings distempered	798
,, walls made dry by the insertion of damp courses, or other methods	111
Inquiries into cases of infectious disease	200
Inspections of houses on complaint or otherwise	790
,, " " under Housing and Town Planning Act, 1909	509
,, " " work in progress	188
Miscellaneous defects remedied	215
New urinals provided	2
Overcrowding abated	9
Poultry and other animals removed	11
Re-inspection of houses, &c.....	2616
Schools inspected	25
Sink or other waste pipes renewed, disconnected or trapped	208
Sinks, new channels provided	52
Slaughterhouse inspections.....	60
Urinals inspected in connection with hotels and other licensed premises	105
W.C.'s, additional W.C.'s provided	3
,, flushing apparatus provided or repaired	194
,, new pans provided	52
,, structural defects remedied	35
Window sashes hung so as to open full size	602
Yard pavement provided or repaired in connection with dwelling houses.....	243

Premises and Occupations Controlled by Bye-laws.—
Bye-laws have been adopted with respect to the following:—

Tents, vans, sheds, &c., for human habitation
(July, 1903).

Houses let in lodgings (July, 1903).

Accommodation of persons engaged in Hop-
picking and picking of fruit and vegetables
(August, 1903).

Bye-laws and regulations with regard to sanitary con-
veniences:—

Common lodging houses.

OFFENSIVE TRADES.—Blood boiler, blood drier, bone
boiler, fellmonger, tanner, leather dresser, soap
boiler, tallow melter, fat melter, tripe boiler, glue
maker, size maker, gut scraper.

Slaughter-houses.

New street and buildings.

COMMON LODGING HOUSES.—There are six houses
registered affording accommodation for 190 lodgers.

There are no cellar dwellings in the town.

The offensive trades carried on in the town include
that of tanning and of tallow melting, both have been
carried on with the minimum of nuisance.

SCHOOLS.—The state of health of the scholars attending
the Public Elementary Schools forms the subject of a
separate report.

The sanitary condition of the schools has been enquired
into from time to time, 25 inspections having been made of
the school premises.

FOOD.

Milk Supply.—The number of cowsheds in the Borough is 11, and the milkshops 127. These have been regularly inspected, in all 187 inspections having been made. Many of the milk shops have a very small trade, and in connection with a general business

In these cases special attention has been drawn to the importance of keeping milk while exposed for sale covered up with a light muslin cloth, and this has now become quite the common custom.

By the provisions of the Public Health (Milk and Cream) Regulations, 1912, no preservative is to be added to milk in any case, and no preservative is to be added to cream unless this is sold as preserved cream, and labelled showing the amount and nature of the preservative used. The only preservatives that may be used are borax, boric acid (either separated or mixed) and hydrogen peroxide.

These restrictions are important in the interests of the public generally, and still more so as regards infants and invalids whose sole diet may consist of milk for long periods.

During the past year the action taken under the above Regulations is set forth as below :—

1. MILK ; and CREAM not sold as PRESERVED CREAM.

—	(a) Number of samples examined for the presence of a preservative.	(b) Number in which a preservative was reported to be present.
Milk	70	—
Cream	2	—

2. CREAM sold as PRESERVED CREAM

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

(i) Correct statements made ... 2

(ii) Statements incorrect —

Total 2

(b) Determinations made of milk fat in cream sold as preserved cream.

(i) Above 35 per cent. 2

(ii) Below 35 per cent..... —

Total 2

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed. None.

(d) Particulars of each case in which the Regulations have not been complied with, and action taken. None.

3. THICKENING SUBSTANCES.—Any evidence of their addition to cream or to preserved cream Action taken where found. None.

4. OTHER OBSERVATIONS, IF ANY. None.

Other Foods.—The following articles of food have been voluntarily surrendered as being unfit for food, viz., one tuberculous pig, two dropsical sheep, a number of pieces of beef and pork and about 10 stone of haddock and other

fish. In addition the following tinned food has been surrendered, viz.:—

Beef	223 lbs.
Fruit	424 lbs.
Lobster	2 lbs.
Milk.....	146 tins
Paste	23 jars
Salmon	120 lbs.
Sardines	31 tins
Tongue	57 lbs.
Mutton	6 lbs.
Herrings	6 tins

There are 22 slaughter-houses in the Borough. These have been regularly inspected both during times of slaughtering and at other times, 60 inspections having been made. No tuberculous meat was discovered.

Sale of Food and Drugs Act.—During the year 98 samples were taken, comprised as follows :—

	Number.	Number Genuine.
Milk	68	63
Separated Milk ...	2	2
Whiskey	4	4
Butter	15	15
Brandy	2	1
Cream	4	4
Shrimp Paste	2	2
Vinegar.....	1	1
	—	—
Totals	98	92
	—	—

No legal proceedings were taken, the adulteration being only slight.

HOUSING.

There has lately been a considerable addition to the artisan population of the town by the opening up of additional factories, and this has caused some difficulty in obtaining suitable house accommodation, notwithstanding the fact that during the last few years many houses of this class have been erected on the outskirts of the borough and just outside it.

The town being an old one has many courts and alleys, and in consequence has a certain number of back to back houses. The open spaces adjoining these courts are narrow and restricted.

These spaces are, however, covered with some impervious material and continue to be regularly cleansed by and at the expense of the public authority.

Attention has been paid to overcrowding in nine houses, and the occupiers were instructed to abate the nuisance.

The Health Department has no supervision over the erection of new houses.

The Borough Surveyor informs me that during the year under review the following houses have been built in the Borough, viz., 14 houses with less than 5 rooms, 16 with more than 5 rooms.

The work accomplished under the Housing and Town Planning Act is detailed as below :—

Housing and Town Planning Act. 1909.

(1) Number of dwelling houses inspected under and for the purposes of Section 17 of the above Act	509
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(2) Number of dwelling houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation	2
(3) Number of representations made to Local Authority with a view to making of closing orders.....	2
(4) Number of closing orders made	2
(5) Number of dwelling houses the defects in which were remedied <i>without</i> the making of closing orders	400
(6) Number of dwelling houses which, after the making of closing orders, were put into a fit state for human habitation	Nil
(7) Number of houses demolished	2

The general character of the defects found consisted of absence or defect of impervious flooring in cellars in 84 cases, defective floors in living rooms in 99 instances, guttering and shooting in a bad state of repair in 87 instances roofs defective in 137 cases, absence of through ventilation in 17 cases. A large number of rooms were discovered where dirty and loose paper required removing and walls and ceilings distempered.

In 111 instances the walls have been made dry by the insertion of damp courses or by other methods.

The order of the Local Government Board under the Housing and Town Planning Act, 1909, confirmed the closing order made by the Council in respect of No. 26, Orchard Street, and quashed the order in respect of Nos. 27, 28, and 29, Orchard Street.

WORKSHOPS, WORK PLACES, &c.

From the table in the appendix it will be seen that there are 375 workshops in the Borough and that 446 inspections have been made. As a result of these inspections 19 defects were discovered and remedied. The defects in the main being want of cleanliness and unsuitable or defective sanitary accommodation.

SANITARY ADMINISTRATION.

The Sanatorium.—During the year the following cases have been admitted for treatment.—

Diphtheria	24
Scarlet Fever.....	145

Two cases of Diphtheria proved fatal after removal to the Sanatorium one dying the day after removal and the other eight days afterwards.

Two cases of Scarlet Fever died while under treatment at the Sanatorium.

The Scarlet Fever Block was open throughout the whole year. The temporary building was opened on the 30th of November and remained in use until the end of the year.

The Diphtheria Block was also open throughout the whole year with the exception of a few days in May, September and October.

The staff at the Sanatorium at present consists of a matron, six nurses and three ward maids, together with a porter and two female servants.

A Washington Lyons' Disinfecter is in use at the Sanatorium for the disinfection of clothes, bedding, &c.

The number of patients treated in the Sanatorium for the previous ten years is as follows:—

DISEASE.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	Previous 10 Years' Average.
Diphtheria	11	35	17	13	34	32	98	34	12	17	24	30
Scarlet Fever	25	36	170	205	56	58	42	30	42	78	115	74
Enteric Fever .....	...	...	...	...	...	...	...	...	10	4	...	1
Totals	36	71	187	218	90	90	140	64	64	99	169	105

Chemical and Bacteriological Work.—The public water supplies continue to be examined chemically every week and bacterially twice a year. The results are summarised under the general heading of the Water Report, while the detail appears in the appendix.

It is satisfactory to note that increasing use is made of the facilities offered by the Bacterial Laboratory under the Administration of the County Medical Officer of Health.

The apparatus required for the taking of specimens for bacterial examination has been supplied to all medical men in practice in Maidstone, and include sterile swabs for use in cases of suspected diphtheria, flasks for the collection of sputum in consumption, glass pipettes for the collection of blood in cases of suspected enteric fever and of cerebro spinal fever and acute poliomyelitis.

Facilities are also available for the Wasserman reaction.

Reports of the result of the examination are forwarded direct to the medical attendant, and, with the exception of the Wasserman reaction, a copy is also sent to the Medical Officer of Health.

No cases of diphtheria are treated at the Sanatorium without a bacterial examination at the onset of the illness, and no cases are allowed to return to their homes unless

the secretion both from the throat and from the nose is proved to be free from the specific organism. An examination of the subjoined table indicates that the average number of bacterial examinations to achieve these objects is 4.4 per notification.

Although 129 notifications of tuberculosis of the lungs (consumption) were received, in only 24 instances was the specific organism found to be present in the sputum after bacterial examination.

The total amount of bacterial work done on behalf of the Borough is much in excess to that done in the previous year, the total number of reports received during the year being 238, whereas last year the number was 114.

The detail appears below :—

Disease.	Bacteriological Examinations.		Un- certain.	Total.	Notifica- tions.	Number of Examina- tions per Notification.
Diphtheria	40	84	2	126	29	4.4
Typhoid Fever	5	8	—	13	5	2.6
Phthisis	24	45	—	69	129	.53
Ringworm	13	10	—	23	—	—
Various	—	—	—	7	—	—
	—	—	—	—	—	—
	82	147	2	238		
	—	—	—	—		

PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASES.

Scarlet Fever.

This malady has been prevalent throughout the whole year, but more particularly in the last quarter. The type was of the mildest possible description, in many instances the initial rash being scarcely

discernible and the constitutional disturbance very slight. In many instances I have little doubt that the illness escaped observation and in consequence notification. In not a few cases the disease remained unrecognised until free desgnamation was observed, and then on close examination a history of previous sore throat and rash could be obtained. Records were made and are preserved so that any common factor at work in producing either the origin or the spread might be at once recognised.

The resources of the Sanatorium were taxed severely, yet all cases where removal was either requisite in the interests of the public health, or was wished for on the part of the sufferers, were admitted, 87 per cent. of the cases notified being removed. Three cases proved fatal.

Quarter.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	Previous 10 Years' average.
1st	12	1	3	78	21	19	11	3	4	40	28	19
2nd ...	10	11	35	60	11	11	21	18	2	19	42	19
3rd... ..	5	11	27	87	11	11	6	4	5	10	29	17
4th .....	...	9	198	44	24	22	9	10	46	28	66	38
Year ...	27	32	263	269	67	63	47	35	57	97	165	95
Cases removed to Sanatorium.	25	29	170	218	56	58	42	30	42	78	145	74

Diphtheria.

Twenty-nine notifications of Diphtheria were received, and of this number the characteristic germ was detected in 22 cases, while in 5 cases it could not be demonstrated.

In the remaining two cases no report was received as to the results of a bacterial examination if such were made.

The type of malady was not severe; three cases, however, proved fatal. In one case death occurred a few hours after the doctor first saw the case in the home, and was too far advanced even for antitoxin to be administered or a specimen taken for examination. In another case the child succumbed within 24 hours of its removal to the Sanatorium, and in the remaining case on the eighth day.

Diphtheria antitoxin is supplied free of charge to medical practitioners on their requisition either at the Sanatorium or at the Police Station, the latter place being chosen on account of its central position and its always being open. It is intended that this Diphtheria antitoxin so obtained shall only be used for the benefit of those patients who are not in a position to pay for the remedy.

The details of the notifications for the past ten years appear below—

Quarter.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	Previous 10 Years' average.
1st	4	13	6	10	10	13	31	6	3	5	7	10
2nd ...	5	6	3	6	6	3	26	4	2	4	4	7
3rd.....	2	9	12	3	13	6	24	19	5	8	4	11
4th.....	5	11	3	6	12	15	28	10	12	7	14	10
Year ..	16	39	24	25	41	37	109	39	22	24	29	37
Cases removed to Sanatorium.	11	35	17	13	34	32	98	35	12	17	24	35

Enteric Fever.

Five cases were notified during the year, all of which were confirmed by the Widal reaction. Four of these cases occurred in one of our public institutions, the onset in two cases being simultaneous in the second week in October, and two also simultaneously in early November. Careful enquiries failed to elicit any satisfactory cause for their origin. The water supplied was specially examined both chemically and bacterially, and showed no deviation from their usual standard. The question of the milk and of the food supply was also considered, and enquiries were directed towards discovering the possibility of a carrier being on the staff and engaged in cooking, but no satisfactory evidence was forthcoming as to the origin of these cases. The remaining case was of the mildest possible nature, and was the only case occurring amongst the inhabitants of the town itself throughout the year.

The detail of the notifications for the past ten years appears below :—

Quarter.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	Previous 10 Years' average.
1st	1	—	—	—	2	1	2	—	—	1	—	·7
2nd	1	3	2	3	—	—	1	1	2	2	—	1·5
3rd	2	1	—	—	1	2	—	1	3	2	1	1·2
4th	5	1	1	2	1	1	—	—	9	—	4	2·3
Year . . .	9	5	3	5	7	4	3	2	14	5	5	5·7
Cases removed to Sanatorium.									10	1	—	1·1

Small Pox.

For the eleventh successive year no case of Small Pox has been notified as existing within the Borough, the last outbreak being in 1902 when 32 cases occurred.

From the subjoined table it will be seen that the number of conscientious objectors to vaccination is a steadily increasing one, so much so that for the period January to June, 1913, the latest for which figures are available, 69.2 per cent. of the children born are liable to contract Small Pox.

No provision exists for the effective isolation of cases of Small Pox.

I am indebted to Mr. Poste the Vaccination Officer for the subjoined table:—

Vaccination.

Year.	Births.	Successfully Vaccinated.	In-susceptible to Vaccination.	Had Small Pox.	Died Unvaccinated.	Number in respect of whom Certificates of Conscientious Objection have been received.	Vaccination postponed.	Removals.	Remaining.	Children not vaccinated (included cases postponed) per cent. per birth.
1898	716	314	1	—	84	27	41	69	180	44.2
1899	818	433	2	—	64	59	79	87	94	38.9
1900	825	420	1	—	61	35	35	81	192	53.6
1901	763	567	1	—	61	95	2	33	15	19.0
1902	815	649	3	—	63	71	10	16	3	12.2
1903	806	620	2	—	76	81	7	12	5	12.1
1904	832	661	1	—	69	91	3	14	3	13.3
1905	799	591	—	—	68	111	6	23	—	17.4
1906	830	629	—	—	61	112	6	20	3	21.3
1907	763	520	—	—	58	169	5	11	—	26.1
1908	811	425	—	—	58	342	3	18	1	49.6
1909	779	336	—	—	47	373	3	19	1	50.1
1910	768	287	1	—	41	422	2	11	1	60.8
1911	723	218	1	—	46	413	3	11	1	65.6
1912	670	212	—	—	30	411	—	15	2	68.3
1913*	358	110	—	—	17	216	5	6	4	69.4

January to June.

Erysipelas.

Quarter.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	Previous 10 Years' average.
1st.....	10	3	4	4	6	7	2	3	2	10	10	5.0
2nd ...	4	3	0	3	5	3	2	2	3	3	2	3.3
3rd....	5	1	4	3	4	2	5	2	3	2	6	3.1
4th.....	6	1	8	10	7	3	2	1	7	3	5	4.8
Year ..	25	8	16	25	22	15	11	8	15	18	23	16.3

There were 23 cases of Erysipelas, none of which proved fatal.

Puerperal Fever.

Quarter.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	Previous 10 Years' average.
1st.....	1	2	—	—	1	1	—	1	—	1	—	.7
2nd ...	3	—	—	1	—	—	1	—	—	—	—	.5
3rd.....	—	—	—	1	—	—	—	1	—	—	—	.2
4th.....	1	—	—	1	1	2	—	—	1	—	—	.6
Year ...	5	2	—	3	2	3	1	2	1	1	—	2.0

No cases of Puerperal Fever were notified.

Total Notifications.

Throughout the year 382 cases of infectious diseases were dealt with, this being considerably above the average for the past ten years, but this is accounted for by the fact that Pulmonary and other forms of Tuberculosis are now notifiable, 160 of these being notified.

The detail appears in the following tables :—

Quarter.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	Previous 10 Years' average.
1st	28	19	12	92	40	41	46	13	15	93	135	38
2nd ...	23	24	40	78	22	17	51	25	22	47	67	35
3rd	14	22	34	94	29	21	35	27	28	35	60	36
4th	17	23	210	63	48	43	39	21	78	60	120	59
Year ...	82	88	306	327	139	122	171	86	143	235	382	169

Disease.	Previous 10 Years' average	1913.
{ Diphtheria	37	29
{ Croup		
Scarlet Fever	95	165
{ Typhoid Fever	5.7	5
{ Continued Fever		
Erysipelas	16.3	23
Puerperal Fever	2.0	...
Small Pox .....	...	...
Pulmonary Tuberculosis .....	...	129
Other forms of Tuberculosis ...	...	31
Polio-myelitis .....	...	...

The Non-Notifiable Infectious Diseases.—A system of voluntary notification of Measles, Chicken Pox, Whooping Cough, Mumps and Ringworm has been organised amongst the head teachers of the Public Elementary Schools and continues to work satisfactorily and to afford much valuable information.

Prevalence of and Control over Tuberculosis.—The number of primary notifications of all forms of Tuberculosis received during the year amounted to 160. Of this number 129 related to Pulmonary Tuberculosis, generally known as Consumption, and 31 to all other forms of Tuberculosis and principally that affecting bones.

Distributed according to sex, 65 cases of pulmonary consumption were in males and 64 in females. In the other forms of tuberculosis, 18 were in males and 13 in females.

Rather more than half the cases occurred in the age-group comprised between the years of 25 and 45 years.

The number of deaths that occurred in the Borough was 46.

The case incidence of all forms of tuberculosis is thus 4.4 per 1,000, while the death-rate is 1.22.

On receipt of a primary notification the house is visited by the Medical Officer of Health, when enquiries are made, and instructions given especially with regard to the infectious character of the malady. Contacts are referred to the Tuberculosis Dispensary which has been opened during the year under the auspices of the Kent County Council.

Should the case be considered suitable for visitation by a nurse, the name is forwarded to the County Medical Officer of Health, who arranges for subsequent visitation by a nurse on his staff.

Disinfection is carried out by the sanitary staff of the Borough when a case leaves for treatment in a Sanatorium, or when it proves fatal; cases of overcrowding and uncleanliness, or of sanitary defects are dealt with by the Sanitary Authority.

It is satisfactory to note that an increasing use is made of the facilities offered by the County Bacterial Laboratory for examination of sputum so important in suspected cases of early phthisis, and that practically all practitioners in the town make use of this valuable assistance to early diagnosis.

INFANTILE MORTALITY.

The number of children born was 735 and of this number 44 died before they reached the age of 12 months,

giving a mortality rate of 59·8 per 1,000 births. This is very satisfactory being the lowest yet recorded in Maidstone. Last year the rate was 76·2 per 1,000. Of the 35 illegitimate births 4 died before they reached the age of one year, giving a rate of 114 per 1,000, a very different figure to that of the legitimate births.

The rate for the 145 smaller towns in England and Wales, of which Maidstone is one, was 112 per 1,000.

The subjoined table shews in a very striking manner the great saving of Infantile life that has been brought about during the past 40 years, the rate having been reduced from 157 per 1,000 to 59. This diminution is the rate of Infantile Mortality since the decennial period of 1870-1879 represents a gain to the community of 73 lives during the year 1913.

The notification of Births' Act, 1907, is not in force in Maidstone, but there is a system of District Nursing which to some extent carries out the provisions of this Act.

**Deaths per 1000 Births of Children under One Year
in Maidstone.**

Averages for Years.	1 Quarter	2nd Quarter.	3rd Quarter.	4th Quarter.	Whole Year.
1870-1879	176	121	203	128	157
1880-1889	143	98	160	129	132
1890-1899	130	89	168	131	127
1900-1909	128	83	114	114	113
1910	103	57	62	98	80
1911	77	88	257	104	131·5
1912	95	83	29	95	76·2
1913	59	72	48	60	59·8

VITAL STATISTICS.

For purposes of comparison the calculations arrived at are based on the estimated population on June 30th, 1913, which was 35,944.

From out of this population there were registered:—

Of Births	735
„ Deaths	456
„ Marriages.....	296

So that the rates per thousand were:—

Of Births	20·4
„ Deaths	12·6
„ Marriages.....	8·2

BIRTH RATE.—This shows some improvement over that of 1912, being 1·7 per 1,000 higher.

The number of males born was 373 and of females 362.

Included in the total are those of 35 illegitimate children, being a rate of 4·7 per 1,000.

The annual Birth-rate for the 145 smaller towns was 23·9 per 1,000 living.

DEATH RATE.—The nett Death-rate should express the Death-rate at all ages of persons belonging to the Borough.

In arriving at this rate notice is taken of all persons registered as having died within the Borough whether inhabitants or otherwise.

From this total the number of those who have died in the Kent County Asylum at Barming, the West Kent

General Hospital and the Ophthalmic Hospital and who have not a fixed or usual residence in Maidstone are deducted. On the other hand those who have a fixed or usual residence here and who have died in Public Institutions elsewhere, or while away from the town are added. Included in this category the great bulk are those who have died in the Infirmary at Coxheath.

The Standardised Death-rate is 11·6 this year as against 11·3 for 1912.

The Annual Standardised Death-rate for the 145 smaller towns was 13·0.

In Table I. of the Appendix to this report details of the Births and Deaths for the past year are given, together with the details and averages for the previous five years.

In Table III. the 450 Deaths of the Residents of the Borough are classified in their various age periods, and also under their various causes. From this table it will be seen that 44 people died from Cancer. In the previous year 38 people died from this malady.

METEOROLOGY.

The detail of meteorological observations is set forth in the Appendix. The mean reading of the barometer for the year is 29·87 inches, the highest monthly means being for February and March, 30·27 and the lowest for October, 29·55. The hottest month was August giving a mean of the maximum readings of the thermometer in the shade of 72°, and a mean of the minimum readings of 52°, while the coldest months were January and February with a mean of maximum readings of 46°, and a mean of

minimum readings of 35° . The prevailing winds were S.W., there being 105 days on which the wind was in this quarter. The total rain-fall for the year was 26.10 inches, the heaviest amount falling in October, viz., 4.65 inches, while during June the amount registered was .35 inches, this being the driest month of the year. There were 181 days in the year on which .01 of an inch or more rain fell.

I have the honour to be,

Mr. Mayor and Gentlemen,

Your obedient Servant,

C. PYE OLIVER, M.D.

Doctor in State Medicine (Lond.).

The Gables, Maidstone,

March 21st, 1911.

BOROUGH OF MAIDSTONE, 1913.**General Summary.**

POPULATION, 3rd April, 1911...	...	...	...	35,475
, (estimated to the middle of 1913)	...	...	...	35,944
NUMBER OF INHABITED HOUSES AT CENSUS OF 1911	...	...	...	7,298
AVERAGE NUMBER OF PERSONS PER HOUSE	...	...	...	4·8
AREA	...	...	{ East Maidstone 2,019 acres } { West „ 1,989 „ }	4,008 acres
DENSITY	...	...	...	8·8 persons per acre
ANNUAL BIRTH RATE	...	...	...	per 1,000 29·4
ANNUAL CRUDE DEATH RATE	...	...	...	12·6
ANNUAL STANDARDISED DEATH RATE	...	...	...	11·6
ZYMOTIC DEATH RATE	...	...	...	·58
PHTHISIS DEATH RATE	...	...	...	1·9
OTHER TUBERCULAR DISEASES' DEATH RATE	...	...	...	·22
RESPIRATORY DEATH RATE	...	...	...	1·3
INFANTILE DEATH RATE PER 1,000 BIRTHS	...	...	...	59·8
BIRTHS	...	...	{ Males 373 } { Females 362 }	735
DEATHS	...	...	...	456
EXCESS OF BIRTHS OVER DEATHS	...	...	...	279

ELEVATION.—The Population reside at a mean Elevation of 70 feet above the sea level, ranging from 20 to 120.

AREA.—The area of 4,008 acres is divided into two divisions by Weir Street, Gabriel's Hill and Stone Street; all to the West, including the Western side of those Streets constituting West Maidstone; the Eastern portion forming East Maidstone.

TABLE I.—Vital Statistics of Whole District during 1913 and previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.*		NETT DEATHS BELONGING TO THE DISTRICT.				
		Un-corrected Number.	Nett.		Number.	Rate.	Of Non-residents registered in the District.	Of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Net Births.		
1	2	3	4	5	6	7	8	9	10	11	12	13
1908.	34771	831	831	23·90	594	17·3	197	55	87	104	452	12·9
1909.	34960	766	766	21·91	625	17·8	235	44	68	88	434	12·1
1910.	35154	771	771	21·92	592	16·8	226	44	62	80·4	410	11·6
1911.	35526	722	730	20·54	569	16·0	136	67	96	131·5	500	14·07
1912.	35734	657	669	18·72	507	14·18	126	69	51	76·2	450	12·31
1913.	35944	726	735	20·4	518	14·4	131	69	44	59·8	456	12·6

NOTES.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 some of the corrected rates probably will not be available. The rates should be calculated per 1000 of the estimated gross population. In a district in which large Public Institutions for the sick or infirm seriously affect the statistics, the rates in Columns 5 and 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

Area of District in } 4008 Acres.
acres (land and
inland water.

Total population at all ages 35,475 } At Censuses
Number of inhabited houses 7,298 } 1911.
Average number of persons per house 4·8

TABLE II.—Cases of Infectious Disease notified during the year 1913.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							TOTAL CASES NOTIFIED IN EACH LOCALITY.		Total Cases removed to Hospital.
	At all Ages.	At Ages—Years.						East Maidstone.	West Maidstone.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.				65 and upwards.
Small Pox ...	—	—	—	—	—	—	—	—	—	—
Cholera (C) Plague (P)	—	—	—	—	—	—	—	—	—	—
Diphtheria (including Membranous croup)	29	—	14	5	1	1	1	—	15	24
Erysipelas ..	23	—	1	1	5	14	14	2	13	—
Scarlet Fever ...	165	—	112	15	8	—	—	—	92	145
Typhus Fever...	—	—	—	—	—	—	—	—	—	—
Enteric Fever...	5	—	—	2	3	—	—	—	4	—
Relapsing fever (R)	—	—	—	—	—	—	—	—	—	—
Continued fever	—	—	—	—	—	—	—	—	—	—
Puerperal fever	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Meningitis ...	—	—	—	—	—	—	—	—	—	—
Polionyelitis ...	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	129	1	16	20	59	28	28	5	—	—
Other forms of Tuberculosis ...	31	—	18	4	4	1	1	—	—	—
Totals ...	382	1	42	161	47	80	44	7	—	169

Isolation Hospital—The Sanatorium, Fant Lane, Maidstone.

TABLE III.

Causes of, and Ages at Death during the Year 1913.

CAUSE OF DEATH.	Nett Deaths at the sub-joined ages of "residents," whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2 years	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
All causes (Certified (c) .. Uncertified ..	451 5	43 1	12 1	9 ..	15 ..	22 ..	64 1	97 3	188..	....
Enteric Fever .. .. .	..	..	..	..	..	..	..	..	..	..
Small-pox .. .. .	..	..	..	..	..	..	..	..	..	..
Measles	1	1	..	..	..	..	..	..	..	1
Scarlet Fever	3	..	..	1	2	..	..	..	..	3
Whooping Cough	3	1	1	..	..	..	..	..	..	..
Diphtheria and Croup	3	..	..	2	1	..	..	..	..	2
Influenza	1	..	..	..	..	..	1	..	..	..
Erysipelas .. .. .	..	..	..	..	..	..	..	..	..	..
Phthisis (Pulmonary Tuberculosis)	38	..	1	..	1	9	17	10	..	22
Tuberculous Meningitis)	6	..	2	2	1	1	..	..	..	3
Other Tuberculous Diseases	2	..	..	..	1	..	1	..	..	2
Cancer, malignant disease	44	..	..	..	..	..	5	16	23	11
Rheumatic Fever	3	..	..	1	..	..	2	..	..	1
Meningitis	2	1	..	..	..	..	1	..	..	1
Organic Heart Disease	56	..	..	..	2	5	6	18	25	23
Bronchitis	26	3	1	1	1	..	2	3	15	11
Pneumonia (all forms)	29	5	3	1	1	..	3	5	11	22
Other diseases of respiratory organ	5	..	..	..	..	1	3	..	1	1
Diarrhoea and Enteritis	13	12	1	..	..	..	..	..	..	..
Appendicitis and Typhlitis	4	..	..	..	1	1	1	1	..	2
Cirrhosis of Liver	8	..	..	..	..	..	..	7	1	3
Alcoholism	1	..	..	..	..	..	..	1	..	..
Nephritis and Bright's Disease	16	..	..	..	..	..	2	10	4	20
Puerperal Fever .. .. .	..	..	..	..	..	..	..	..	..	..
Other accidents and diseases of Pregnancy and Parturition	3	..	..	..	..	1	2	..	..	1
Congenital Debility and Malformation, including Premature Birth	19	17	1	1	..	..	..	..	..	2
Violent Deaths, excluding Suicide	12	1	..	..	2	..	5	1	3	7
Suicide	3	..	..	..	..	1	1	..	1	..
Other Defined Diseases	148	2	2	..	2	2	10	26	103	95
Diseases ill-defined or unknown	9	1	1	..	..	1	3	2	1	1
All Causes	456	44	13	9	15	22	65	100	188	234

TABLE VI.

Factories, Workshops, Workplaces and Homework.**1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.**

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
Factories..... (Including Factory Laundries).	100	1	—
Workshops..... (Including Workshop Laundries).	316	11	—
Workplaces (Other than Outworkers' premises included in part 3 of this Report).	30	—	—
TOTAL.....	446	12	—

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

PARTICULARS. (1)	Number of Defects.			
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	Number of Prosecu- tions. (5)
Nuisances under the Public Health Acts : *				
Want of Cleanliness ..	3	3	—	—
Want of Ventilation ..	1	1	—	—
Overcrowding ..	—	—	—	—
Want of Drainage of Floors ..	1	1	—	—
Other Nuisances ..	3	3	—	—
Sanitary Accommo- dation. { Insufficient.....	1	1	—	—
{ Unsuitable or Defective ...	10	10	—	—
{ Not Separate for Sexes....	—	—	—	—
Offences under the Factory and Workshops Acts :—				
Illegal Occupation of Underground Bake- house (s. 101).....	—	—	—	—
Breach of Special Sanitary requirements for Bakerhouses (ss. 97 to 100) ..	—	—	—	—
Other Offences .. (Excluding Offences relating to Out- work which are included in Part 3 of this Report)	—	—	—	—
TOTAL	19	19	—	—

Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

3. HOME WORK.

Nature of Work.	Outworkers' Lists, Section, 107.										Outwork in un- wholesome pre- mises sec. 108.				Outwork in In- fected premises, secs. 109, 110.					
	Lists received from Employers.					Prosecu- tions.					Instances.		Instances.							
	Sending twice in the Year.					Keeping or Sending Lists.					Notices served.		Orders made (s. 110).							
	Li- ts.	Out- workers. Contractors.	Out- workers. Workmen.	Lists.	Out- workers. Contractors.	Out- workers. Workmen.	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1)																				
Wearing Apparel—																				
(1) Making, &c.	20		50									16								
(2) Cleaning and Washing																				
Household Linen																				
Lace, Lace Curtains and Nets																				
Curtains and Furniture Hangings																				
Furniture and Upholstery																				
Electro Plate																				
File Making																				
Brass and Brass Articles																				
Fur Pulling																				
Cables and Chains																				
Anchor and Grapnels																				
Cart Gear																				
Locks, Latches and Keys																				
Umbrellas &c.																				
Artificial Flowers																				
Nets, other than Wire Nets																				
Tents																				
Sacks																				
Racquet and Tennis Balls																				
Paper, &c. B. xes. Paper Bags																				
Brush Making																				
Pea Picking																				
Feather Sorting																				
Cordage, &c. of Buttons, &c.																				
Stuffed Toys																				
Basket Making																				
Chocolates and Sweetmeats																				
Cosmetics, Christmas Crackers, Christmas Stockings, &c.																				
Textile Weaving																				
Total	20		50									16								

4. REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year. (1)		Number (2)
Important classes of workshops, such as workshop bakehouses, may be enumerated here ..	Registered Workshops	342
	Bakehouses	33
Total Number of Workshops on Register.....		375

5. OTHER MATTERS.

Class. (1)	Number. (2)
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133), 1901	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5), 1901 }	Notified by H.M. Inspector 11
	Reports (of action taken) sent to H.M. Inspector... 10
Other	—
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	—
In use at the end of the year	5

TABLE VI.—Boarley Water Supply.

Source of Sample.	Date of Collections.	Total Solids.	Chlorine.	Nitrogen as Nitrates.	Ammonia.		Hardness.		Colour and appearance in 2-ft. tube.	Smell.	Phosphoric Acid.
					Free.	Albu- minoid.	Total.	Fern.			
1913.											
Gathering Grounds	Jan. 6	396	23	535	00	01	250	68	clear	none	none
35, Randall Street ..	13	398	23	452	00	02	250	68	"	"	"
Gathering Grounds	21	400	23	576	00	02	260	70	"	"	"
31, County Road	27	400	23	535	00	02	260	70	"	"	"
Gathering Grounds	Feb. 3	398	22	329	00	00	266	68	"	"	"
12, Randall Street ..	10	400	23	535	00	01	260	70	"	"	"
Gathering Grounds	18	400	22	205	01	02	250	70	"	"	"
8, Albert Street	24	402	22	411	00	01	259	74	"	"	"
Gathering Grounds	Mar. 1	400	23	411	01	01	260	70	"	"	"
17, Blufft Street	10	400	22	452	01	02	260	70	"	"	"
Gathering Grounds	17	398	23	617	01	01	259	70	"	"	"
29, Scott Street	24	398	22	617	00	01	260	68	"	"	"
Gathering Grounds	31	400	23	535	00	01	260	70	"	"	"
16, Scott Street	April 7	400	23	617	00	00	254	68	"	"	"
Gathering Grounds	14	390	23	576	00	02	260	68	"	"	"
8, Arundel Street ..	21	400	23	535	00	01	250	70	"	"	"
Gathering Grounds	28	400	23	452	00	01	254	70	"	"	"
7, Union Street	May 5	404	23	576	00	00	260	70	"	"	"
Gathering Grounds	13	400	23	617	00	01	250	70	"	"	"
10, Albert Street	19	404	23	576	00	01	260	70	"	"	"
Gathering Grounds	26	398	21	535	00	01	256	70	"	"	"
69, Brewer Street ..	June 2	400	25	494	00	01	260	68	"	"	"
Gathering Grounds	9	398	24	494	01	00	260	70	"	"	"
89, Salisbury Road...	16	402	21	370	00	01	260	78	"	"	"
Gathering Grounds	23	400	23	452	00	00	260	70	"	"	"
11, Fisher Street	30	400	23	494	00	01	250	70	"	"	"
Gathering Grounds	July 7	398	24	617	00	01	260	70	"	"	"
8, Albert Street	14	402	24	535	00	01	240	66	"	"	"
Gathering Grounds	21	400	23	617	01	01	260	70	"	"	"
7, Randall Street ..	28	398	23	576	00	01	260	68	"	"	"
Gathering Grounds	Aug. 6	402	22	537	01	01	264	72	"	"	"
38, Perry Street	11	400	25	427	00	01	253	62	"	"	"
Gathering Grounds	13	395	25	621	00	01	256	62	"	"	"
90, Sandling Road ..	25	399	27	741	00	01	240	62	"	"	"
Gathering Grounds	Sept. 1	398	24	782	00	00	256	69	"	"	"
4, 8, mare Hill	8	380	26	559	00	00	256	67	"	"	"
Gathering Grounds	15	400	25	691	00	00	254	66	"	"	"
69, Brewer Street ..	22	400	26	740	00	00	254	66	"	"	"
Gathering Grounds	29	400	24	773	00	02	254	66	"	"	"
18, Perry Street	Oct. 6	400	26	773	00	01	268	79	"	"	"
Gathering Grounds	13	390	26	513	00	01	240	71	"	"	"
80, Sandling Road ..	20	395	26	658	01	02	242	68	"	"	"
Gathering Grounds	27	400	27	559	00	02	254	66	"	"	"
10, Sandling Road ..	Nov. 3	420	24	444	01	02	242	66	"	"	"
Gathering Grounds	10	415	22	510	02	02	241	69	"	"	"
8, Albert Street	17	400	24	559	01	02	257	70	"	"	"
Gathering Grounds	34	400	25	329	00	01	258	76	"	"	"
3, County Road	Dec. 1	395	26	250	00	01	265	68	"	"	"
Gathering Grounds	8	395	24	625	00	01	260	76	"	"	"
70, Sandling Road ...	15	395	25	345	00	01	270	76	"	"	"
Gathering Grounds	22	395	25	279	00	01	250	70	"	"	"
80, Sandling Road ..	29	400	26	477	00	01	259	70	"	"	"
Mean results for 1913.		399	24	524	00	01	254	69	clear	none	none

All results are given in parts per hundred thousand, except Free and Albuminoid Ammonia, which are in parts per million.

TABLE VII.—Forstal Water Supply.

Source of Sample.	Date of Collection.	Total Solids.	Chlorine.	Nitrogen as Nitrates.	Ammonia.		Hardness.		Colour and appearance in 2-ft. tube.	Smell.	Phosphoric Acid.
					Free.	Albu- minoid.	Total.	Perm.			
Pumping Station ..	Jan. 6	41.0	2.8	205	.00	.01	27.0	8.0	clear	none	none
"	" 21	42.0	2.9	238	.00	.01	28.0	8.0	"	"	"
"	Feb. 3	42.0	2.0	200	.00	.00	28.0	7.8	"	"	"
"	" 18	42.0	2.9	164	.01	.01	28.0	7.8	"	"	"
"	Mar. 4	41.0	3.0	164	.00	.01	27.0	8.0	"	"	"
"	" 17	42.0	2.8	205	.00	.00	28.0	7.8	"	"	"
"	" 31	41.0	2.9	123	.00	.01	28.0	7.8	"	"	"
"	April 14	42.0	2.9	288	.00	.01	28.0	8.0	"	"	"
"	" 28	41.0	2.9	123	.00	.00	28.0	8.0	"	"	"
"	May 13	43.0	2.8	247	.00	.00	28.0	7.8	"	"	"
"	" 26	42.0	3.0	247	.00	.00	28.0	7.6	"	"	"
"	June 9	41.0	2.9	128	.00	.01	27.0	7.6	"	"	"
"	" 23	42.0	3.0	205	.00	.00	27.6	7.8	"	"	"
"	July 7	42.0	2.9	205	.00	.00	28.0	8.0	"	"	"
"	" 21	42.0	3.0	164	.00	.00	28.0	7.6	"	"	"
"	Aug. 6	42.0	2.8	128	.00	.01	28.0	7.8	"	"	"
"	" 18	39.5	3.4	103	.00	.00	21.0	5.7	"	"	"
"	Sept. 1	41.8	3.4	370	.00	.00	27.8	7.7	"	"	"
"	" 15	41.0	2.8	164	.00	.00	33.2	8.5	"	"	"
"	" 29	41.0	3.0	213	.00	.01	33.5	8.8	"	"	"
"	Oct. 13	41.0	3.1	343	.00	.01	30.1	8.4	"	"	"
"	" 27	41.0	3.9	213	.00	.00	30.1	8.5	"	"	"
"	Nov. 10	42.0	3.0	164	.00	.01	26.2	8.3	"	"	"
"	" 24	42.0	3.2	106	.00	.01	28.0	7.8	"	"	"
"	Dec. 8	41.5	3.1	106	.00	.00	28.0	8.0	"	"	"
"	" 22	42.0	3.1	148	.00	.00	28.6	7.6	"	"	"
	Mean results for 1913.	41.5	3.0	181	.00	.00	28.3	7.8	clear	none	none

All results are given in parts per hundred thousand, except Free and Albuminoid Ammonia, which are in parts per million.

TABLE VIII.—Cossington Water Supply.

Source of Sample.	Date of Collection.	Total Solids.		Chlorine.	Nitrogen as Nitrates.	Ammonia.		Hardness.		Colour and appearance in 2-ft. tube.	Smell.	Phosphoric Acid.
						Free.	Albuminoid.	Total.	Perm.			
Gathering Grounds.	Jan. 13	39.6	2.1	411	.00	.01		24.0	6.6	clear	none	none
"	27	39.6	2.1	452	.00	.01		24.0	6.6	"	"	"
"	Feb. 10	39.8	2.2	452	.00	.01		24.0	6.8	"	"	"
"	24	40.0	2.2	411	.00	.00		24.0	7.0	"	"	"
"	Mar. 10	39.8	2.1	494	.00	.00		24.0	6.8	"	"	"
"	24	40.0	2.3	411	.00	.01		25.0	7.0	"	"	"
"	April 7	30.6	2.1	411	.00	.00		24.0	7.0	"	"	"
"	21	39.8	2.2	370	.00	.01		24.0	6.8	"	"	"
"	May 5	39.8	2.2	535	.00	.00		24.0	6.8	"	"	"
"	19	40.0	2.1	494	.00	.00		24.6	6.8	"	"	"
"	June 2	39.4	2.1	411	.01	.00		24.0	6.4	"	"	"
"	16	40.0	2.2	288	.00	.01		25.0	7.4	"	"	"
"	30	39.8	2.2	329	.00	.01		23.0	6.8	"	"	"
"	July 14	40.0	2.2	329	.00	.01		22.0	6.4	"	"	"
"	28	39.6	2.3	288	.00	.00		23.0	6.4	"	"	"
"	Aug. 13	39.5	2.2	288	.00	.00		23.1	6.3	"	"	"
"	25	39.6	2.2	420	.00	.00		23.0	6.0	"	"	"
"	Sept. 8	37.0	2.4	395	.00	.00		25.2	6.8	"	"	"
"	22	41.0	2.5	674	.00	.00		26.3	6.9	"	"	"
"	Oct. 6	39.5	2.7	543	.00	.02		25.2	7.6	"	"	"
"	20	41.0	2.5	493	.00	.02		25.6	5.9	"	"	"
"	Nov. 3	41.0	2.2	427	.00	.02		23.7	7.3	"	"	"
"	17	39.9	2.1	444	.01	.01		23.2	6.8	"	"	"
"	Dec. 1	39.0	2.1	497	.00	.02		24.0	6.6	"	"	"
"	15	39.5	2.1	230	.00	.01		25.0	7.2	"	"	"
"	29	39.8	2.2	395	.00	.01		22.0	6.8	"	"	"
	Mean results for 1913.	39.8	2.2	407	.00	.00		24.0	6.7	clear	none	none

All results are given in parts per hundred thousand, except Free and Albuminoid Ammonia, which are in parts per million.

TABLE IX.—Cossington and Forstal Water Supply.

Source of Sample.	Date of Collection.	Total Solids.	Chlorine.	Nitrogen as Nitrates.	Ammonia.		Hardness.		Colour and appearance in 2-ft. tube.	Smell.	Phosphoric Acid.
					Free.	Albuminoid.	Total.	Perm.			
1913.											
19, Hartnup Street..	Jan. 6	39.8	2.4	3.29	.00	.01	24.0	6.6	clear	none	none
Sanatorium	" 13	10.0	2.4	1.23	.00	.01	24.0	6.8	"	"	"
70, Tovil Hill	" 21	40.0	2.2	4.91	.00	.01	25.0	7.0	"	"	"
31, Albert Street....	" 26	40.0	2.4	3.70	.00	.00	25.0	7.0	"	"	"
4, Western Road....	Feb. 3	39.8	2.2	5.35	.00	.02	24.0	7.0	"	"	"
33, Hill's Cottages ..	" 10	40.0	2.1	3.70	.00	.01	25.0	7.0	"	"	"
39, Queen's Road....	" 18	40.0	2.1	2.47	.00	.00	25.0	7.8	"	"	"
68, James Street	" 20	39.8	2.3	3.70	.00	.01	26.0	7.6	"	"	"
93, Wheeler Street..	Mar. 4	40.0	2.4	3.70	.00	.01	25.0	7.6	"	"	"
47, Pope Street	" 10	40.0	2.2	3.29	.00	.01	25.0	7.0	"	"	"
67, Wheeler Street ..	" 17	39.8	2.2	4.52	.01	.01	24.0	7.2	"	"	"
22, Milton Street....	" 24	40.0	2.4	3.29	.00	.00	25.0	7.4	"	"	"
Brunswick House School.....	" 31	40.0	2.1	3.29	.01	.01	25.0	7.0	"	"	"
109, Melville Road..	April 7	40.0	2.1	3.29	.00	.00	25.0	7.0	"	"	"
109, Melville Road ..	" 14	40.0	2.2	3.70	.00	.00	25.4	7.0	"	"	"
60, Charlton Street ..	" 21	40.0	2.3	2.47	.01	.01	25.0	7.0	"	"	"
90, Boxley Road ..	" 28	40.0	2.1	4.11	.01	.01	25.0	7.0	"	"	"
8, Hackney Road ..	May 5	40.6	2.4	2.88	.00	.00	25.6	7.0	"	"	"
12, Queen's Road	" 13	40.0	2.3	4.11	.00	.01	24.8	7.0	"	"	"
54, James Street	" 19	40.8	2.3	3.70	.00	.01	25.0	7.0	"	"	"
80, Melville Road ..	" 26	40.0	2.2	3.29	.00	.01	26.0	6.8	"	"	"
1, Charlton Street ..	June 2	40.0	2.4	3.70	.01	.01	26.0	7.0	"	"	"
8, Sittingbourne Rd.	" 9	40.0	2.4	3.70	.00	.02	26.0	7.0	"	"	"
16, Terminus Road ..	" 16	41.0	2.5	4.11	.00	.00	26.0	7.6	"	"	"
14, Church Street. .	" 23	41.0	2.3	3.70	.00	.01	26.0	7.4	"	"	"
Tovil	" 30	40.0	2.4	2.88	.00	.01	26.0	7.0	"	"	"
14, Fant Lane	July 7	40.0	2.3	3.70	.00	.00	26.0	7.6	"	"	"
1, Nelson Yard	" 14	41.0	2.4	2.05	.00	.00	24.0	6.8	"	"	"
24, Thornhill Place ..	" 21	40.0	2.4	2.88	.00	.01	25.0	7.0	"	"	"
3, Evelyn Road	" 28	39.8	2.5	2.47	.00	.00	25.0	6.8	"	"	"
20, Well Road	Aug. 6	40.0	2.3	2.05	.00	.01	25.2	7.2	"	"	"
7, Havock Lane	" 11	39.9	2.9	2.47	.00	.00	25.0	6.4	"	"	"
4, Fant Lane.....	" 18	40.0	2.9	3.13	.00	.00	26.0	6.4	"	"	"
20, James Street	" 25	39.9	2.7	7.40	.00	.00	24.0	6.2	"	"	"
24, Upper Stone St....	Sept. 1	41.8	3.1	3.70	.00	.00	27.8	7.7	"	"	"
13, Brunswick St., E.	" 8	39.0	2.8	2.79	.00	.00	23.3	6.7	"	"	"
Sanatorium	" 15	39.0	2.7	5.59	.00	.00	27.7	7.4	"	"	"
18, Foley Street	" 22	39.0	2.7	4.77	.00	.00	27.7	7.4	"	"	"
10, Gladstone Road ..	" 29	39.0	2.6	3.29	.00	.01	27.7	7.4	"	"	"
254, Upper Fant Rd.	Oct. 6	40.5	2.4	3.95	.00	.01	28.3	8.2	"	"	"
54, James Street	" 13	41.0	2.8	4.93	.00	.01	27.6	8.1	"	"	"
43, Whitmore Street ..	" 20	40.0	2.9	1.64	.00	.01	27.4	7.5	"	"	"
401, Tonbridge Road ..	" 27	42.0	2.9	3.95	.00	.01	27.4	7.5	"	"	"
37, Carey Street	Nov. 3	41.0	2.6	3.29	.01	.02	24.8	6.7	"	"	"
39, Hartnup Street..	" 10	39.5	3.0	2.30	.00	.02	28.2	8.8	"	"	"
33, Lower Fant Road ..	" 17	39.9	2.6	2.96	.00	.01	24.8	6.9	"	"	"
7, Hills Cottages....	" 24	39.8	2.4	1.64	.00	.01	24.8	7.0	"	"	"
75, Salisbury Road..	Dec. 1	40.0	2.7	1.81	.00	.01	25.0	7.0	"	"	"
Barming Asylum ..	" 8	40.0	2.5	2.30	.00	.00	25.0	7.4	"	"	"
307, Tonbridge Road ..	" 15	39.8	2.6	1.06	.00	.01	24.0	7.0	"	"	"
64, Bower Mount Rd.	" 22	39.5	2.6	1.81	.00	.01	24.0	7.2	"	"	"
61, Whitmore Street ..	" 29	40.0	2.6	2.63	.00	.01	24.0	7.0	"	"	"
Railway Hotel											
Mean results for 1913.		40.0	2.4	3.31	.00	.01	27.3	7.1	clear	none	none

All results are given in parts per hundred thousand, except Free and Albuminoid Ammonia, which are in parts per million.

TABLE X.—Monthly Record of Meteorology, 1913.

(Taken at the Borough Surveyor's Office.)

MONTHS.	Mean Reading of Barometer.	Mean of Max. of Thermometer. Degrees.	Mean of Min. of Thermometer. Degrees.	RELATIVE PROPORTION OF WIND.							RAINFALL. Inches.	No. of DAYS ON WHICH .01 OR MORE FELL.
				N.	N.E.	N.W.	S.	S.E.	S.W.	E.	W.	
January ...	29.18	46	35	...	...	3	7	11	6	1	3	22
February ...	30.19	46	35	2	7	1	4	6	6	1	1	10
March ..	30.19	57	38	...	1	2	5	5	12	2	4	24
April ...	39.13	55	40	4	6	2	2	6	8	1	1	19
May ...	29.77	66	47	...	4	5	5	5	9	1	2	10
June ...	29.86	71	50	2	1	3	4	1	9	2	8	6
July ...	29.84	68	53	2	10	5	1	...	6	2	5	14
August ...	29.87	72	52	2	9	6	2	1	7	1	3	12
September ...	29.79	66	52	...	3	4	3	11	4	2	3	14
October ...	29.78	60	46	2	1	3	4	8	10	2	1	20
November ...	29.84	53	40	...	1	3	4	3	16	...	3	18
December ...	30.07	46	36	2	4	4	3	1	12	...	5	12
Means ...	29.87	58	43	16	47	41	44	58	105	15	39	181